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Bavari et al.(10) **Pub. No.: US 2011/0280904 A1**(43) **Pub. Date: Nov. 17, 2011**(54) **GENERATION OF VIRUS-LIKE PARTICLES
AND USE AS PANFILOVIRUS VACCINE****Publication Classification**(76) Inventors: **Sina Bavari**, Frederick, MD (US);
Kelly L. Warfield, Adamstown,
MD (US); **Warren Kalina**, Silver
Spring, MD (US)(51) **Int. Cl.**
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C12N 7/01 (2006.01)(21) Appl. No.: **12/932,195**(22) Filed: **Feb. 18, 2011**(52) **U.S. Cl. 424/202.1; 424/205.1; 435/235.1;
435/325; 435/348****Related U.S. Application Data**(60) Continuation-in-part of application No. 12/590,368,
filed on Nov. 6, 2009, which is a division of application
No. 11/105,031, filed on Apr. 13, 2005, now Pat. No.
7,682,618, which is a continuation-in-part of applica-
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doned.(60) Provisional application No. 60/338,936, filed on Nov.
7, 2001.(57) **ABSTRACT**

In this application are described filovirus-like particles for both Ebola and Marburg and their use as a diagnostic and therapeutic agent as well as a filovirus vaccine. Also described is the association of Ebola and Marburgs with lipid rafts during assembly and budding, and the requirement of functional rafts for entry of filoviruses into cells.